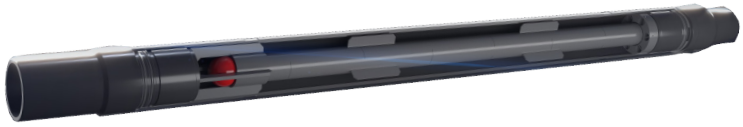
FET | Multilift Solutions

PERFORMANCE SUMMARY

ESP Sand Management Solution
Pre- and Post-Performance Review

ESP SandGuard™



OBJECTIVE

Improve ESP reliability and protect against sand-related failures by preventing sand fallback, reducing restart issues, and stabilizing overall system performance for a California-based operator.

OVERVIEW

SandGuard is installed within the completion to reduce the damaging effects of sand and solids in ESP systems. Designed for high-sand environments, it reduces the risk of restart failure and mechanical instability.

Following installation on March 1, 2026, field data shows a clear shift from unstable operation to consistent, reliable ESP performance.

IMPACT

- ✓ Reduced workover frequency & associated costs
- ✓ Lower lease operating expenses (LOE)
- ✓ Improved asset reliability & uptime
- ✓ Minimized operational & regulatory risk

OPERATIONAL COMPARISON		ENGINEERING VALIDATION	
BEFORE INSTALLING (Pre-March 1, 2026)	AFTER INSTALLING (Post-March 1, 2026)	SAND FALLBACK / IMPELLER PACKING	IMPELLER LOCK / MECHANICAL BINDING
Frequent & clustered shutdown events	Shutdowns are reduced & isolated	No increase in restart torque over time	No locked-rotor current events
Limited continuous runtime	Extended ESP runtime	No rising current demand throughout cycles	No stalled or failed restart attempts
Indicators of operational instability		No signs of progressive degradation	No abrupt thermal spikes during startup

CONCLUSION **The ESP is operating inside expected mechanical and electrical limits, with no evidence of sand interference impacting performance.**

PERFORMANCE RESULTS

Improved ESP Stability
- Clear transition to stable post-installation operations
- Consistent run life with fewer interruptions

Reduced Shutdown Frequency
- Shutdowns are significantly reduced and less frequent
- Longer run times between events

Reliable Restart Performance
- 100% soft-start behavior noted
- No locked-rotor events or torque spikes
- Smooth, controlled frequency ramp-ups

Stable Mechanical Loading
- Torque is consistent across all operating conditions
- No evidence of progressive loading or sand accumulation

Thermal Performance
- Gradual, predictable motor temperature response
- No abnormal heat spikes during restart events

KEY BENEFITS & FEATURES

- » **Prevents Sand Fallback:** Protects pump internals from accumulation.
- » **Improves ESP Restart Reliability:** Eliminates hard starts and torque spikes.
- » **Enhances Run Life:** Extends time between interventions.
- » **Reduces Equipment Wear:** Minimizes mechanical stress.
- » **Stabilizes Production:** Delivers consistent, predictable operation.
- » **No Moving Parts:** Built for dependability in harsh downhole environments.
- » **Seamless ESP Integration:** Works with existing artificial lift systems.

More uptime.
Fewer failures.
Better-performing wells.

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